

Attachment 2: Answers to Additional Outstanding Questions Regarding Recent Marijuana Legislation and Regulations

At the July 25 Cannabis Workshop, the City Council posed a number of questions that remained unanswered regarding marijuana legislation and regulation. Staff has prepared the following responses in conjunction with the consultants from HdL Companies:

Question #1: What incidents are happening with the school districts? At a minimum we need information from AUD and RUD:

Response: The following statistics from the local school districts regarding the number of incidents involving marijuana for the last three academic years.

Alvord Unified School District (AUD)¹

<i>School Year</i>	<i>Marijuana Offenses</i>	<i>Total Drug Offenses</i>	<i>% Marijuana-Related</i>
2014-2015	66	99	67%
2015-2016	57	78	73%
2016-2017	81	124	68%

¹Average enrollment approximately 19,000 students

Riverside Unified School District (RUD)²

<i>School Year</i>	<i>Marijuana Offenses</i>	<i>Total Drug Offenses</i>	<i>% Marijuana-Related</i>
2014-2015	293	328	89%
2015-2016	181	316	57%
2016-2017	169	205	82%

²Average enrollment approximately 42,700 students

Question #2: Please provide more information from hospitals or health department regarding marijuana overdoses and pediatric exposures.

Response: Staff reached out to the Riverside County Public Health Department which indicated that such data is not available at this time. However, the following data and information is available from Washington and Colorado.

Immediately following Colorado marijuana legalization, initial research on marijuana-related hospitalizations and related calls to regional poison control centers revealed a dramatic increase of marijuana-related exposures, overdoses, and toddler ingestion incidents. Published studies from the Colorado Department of Public Health and Environment (CDPHE), Colorado Department of Public Safety (DPS), Colorado Children's Hospital, and Rocky Mountain High Intensity Drug Traffic Area (RMHIDTA) all reported rapid upticks in marijuana related emergencies for all segments of society; adults (Colorado residents and out-of-state visitors), teenagers and young adults, and pediatric.

As reported in the Journal of the American Medical Association (JAMA) Pediatrics, researchers analyzed data on hospital admissions at Colorado Children's between 2009 and 2015. The average rate of marijuana-related visits to the hospital increased from 1.2 per 100,000 population two years before recreational legalization to 2.3 per 100,000 population two years after the development of the commercial industry. This increase is significantly higher than the national average. The same report also speculated that in most cases of accidental ingestion, toddlers were able to get their hand on an adult's marijuana edible product such as, gummies, cookies, or brownies.

Similar concerns were identified in the State of Washington. The March 2016 Washington State Marijuana Impact Report revealed statewide marijuana calls to regional poison centers have been steadily increasing since 2006. From the date of legalization (2012) to 2014, calls increased by 54.26%. In a few of the initial studies, researchers express concerns with the quality of baseline data. The challenge in collecting accurate marijuana-related hospitalizations statistics stems from the lack of uniform billing codes commonly used to report the reasons for hospital visits. That said, no matter how the data is collected, all indications point to an alarming increase, which required immediate attention.

In direct response to the numerous studies, the Colorado General Assembly worked to enact legislation designed to address the packaging, labeling, potency, and dosage of edible products. The goal of the revised legislation was to increase consumer awareness, eliminate products and packaging likely to be enticing to children, and to reduce the amount of cannabinoids per dose. Two years into enhanced product safety regulations, reports show the marijuana hospitalization numbers are starting to decline. As reported in the February 1, 2017 Denver Post, "marijuana-related emergency room visits are down, even though overall consumption of pot remains steady – signs that existing policy and education efforts may be working". According to a published report by Dr. Mike Van Dyke, Chief of Colorado's Environmental Epidemiology, Occupational Health, and Toxicology for the CDPHE. Since 2015, marijuana related calls to regional poison control center and hospital visits have dropped slightly. With that said, legislators and healthcare professionals all agree that more needs to be done around substance abuse education and prevention.

Question #3: We need more public safety information about conversion of marijuana into oil. Are the commercial operations any safer?

Response: Commercial manufacturing of marijuana infused-products is becoming more prevalent as the marijuana industry seeks a more concentrated form of THC and CBD. Marijuana concentrates are significantly more potent than the standard, smokable flower and have become a major player in the regulated market. In Colorado, marijuana infused products, which includes edibles, non-edibles and concentrates, make up 63% of the overall sales. Last year alone, Colorado recreational customers and medical patients purchased 9.3 million items of edibles and concentrates.

The extraction of marijuana concentrates can be a complex and potentially dangerous process. The use of closed-loop extraction systems, which are designed to recover volatile gases preventing them from being released to the environment, are the only systems that meet current regulatory standards. Since legalization in 2011, Colorado has not experienced a single explosion in one of the more than 250 licensed marijuana-infused manufacturing facilities throughout the state. Furthermore, a search of various states with approved marijuana manufacturing activities revealed no reports of explosions taking place at regulated facilities.

The required use of a professionally engineered and industrial hygienist certified closed-loop extraction systems is not the only fire protection measure that should be required in a regulated manufacturing facility. Many jurisdictions involved in the licensing of marijuana extraction facilities now require extraction environments to meet Class 1, Division 1 classifications. Additionally, vacuum ovens, fire suppressions systems, and gas detection systems all help to prevent disastrous incidents from occurring.

Question #4: Can we get a list of the police department reports concerning hemp oil production explosions?

Response: Incidents of Butane Hash Oil (BHO) explosions have dramatically increased throughout the nation since 2011 when Colorado legalized marijuana for medicinal use. Explosions occur when volatile gases are released into the atmosphere during a process known as, “open blasting”. Marijuana or hemp concentrate can be produced with volatile solvents such as butane or propane. The solvent strips the plant of its essential oils, creating a highly potent oil. Open blasting is the most cost effective and dangerous way of producing the concentrated oil.

Question #5: What are the Police Department’s concerns?

Response: As with any other activity in the City, Police are generally concerned with community safety issues, including, but not limited to, thefts, robberies, assaults, and vandalism as a result of or related to commercial cannabis activities. Community and Economic Development Department staff will continue to engage with Police Department staff as a regulatory framework is developed.

Question #6: Can we require a camera system that the Police Department can view live and any time for monitoring purposes?

Response: MCRSA’s proposed regulation 5068, requires commercial marijuana businesses to implement sufficient security measures to deter and prevent the unauthorized entrance into limited access areas. The regulation also specifies which areas of the licensed premises must be monitored by surveillance camera 24 hours per day. As part of the dual licensing process, local licensing authorities have the right to request additional security measures as they see fit. The City may approve proposed local ordinances which require that businesses be responsible for ensuring that the security surveillance camera’s footage is remotely accessible by the chief of Police or

designee(s), and that it is compatible with the City's software and hardware. In addition, remote and real-time live access to the video footage from the cameras shall be provided to the Chief of police or designee(s) upon request. As part of a robust application process, applicants should be required to submit a, "Secure Facilities" document to the law enforcement agency, which includes emergency contact information, outlines security measures and provides IP address for video surveillance equipment.

Question #7: Please provide information on businesses already growing in warehouses. And taxes generated?

Response: Cultivation facilities growing in warehouses are capable of multiple harvest cycles per year, as opposed to a single harvest cycle for outdoor cultivation. Though cultivation methods, harvest cycles and productivity can vary greatly, a standard rule of thumb among many in the industry is that a full-indoor commonly yields five harvests. A flat, square-foot tax on the cultivation area thus gives indoor operations the advantage of being able to amortize that tax over far more product, granting them a distinct price advantage over outdoor cultivation. However, indoor are far more infrastructure intensive than outdoor cultivation and typically carry far greater up-front investment and operational costs. Both of these factors should be considered when developing an appropriate tax strategy.

For purposes of developing tax models, the conservative approach would be to assume just four cycles for indoor cultivation. This assumption is modified for the sake of providing more conservative projections and to recognize that there are a range of practices and regimens for indoor cultivation. Assuming four harvest cycles per year also reflects the higher volatility of a more rigorous and demanding rotation schedule by allowing for the possibility of crop loss due to pathogens or other causes.

Each State cultivation license type allows a range for the amount of area that can be cultivated. Types 1, 1A and 1B ("Specialty") each allow up to 5,000 square feet. Types 2, 2A and 2B ("Small") allow from 5,001 up to 10,000 square feet. Type 3 ("Medium") allows from 10,001 square feet up to a full acre (for outdoor cultivation) while Types 3A and 3B allow from 10,001 up to 22,000 square feet. The Type 5, 5A and 5B ("Large") licenses created by AUMA will allow for unlimited cultivation sizes, starting in 2023. Since it is unknown how many permits maybe considered for cultivation in the City if any at all for the purpose of this analysis we shall use a range of 9-15 permits with a blend of permits for each of the cultivation license types 33% Type 1A, 33% Type 2A and 33% Type 3A.

Number of Permits	\$6 Per Sq. Ft.	\$8 Per Sq. Ft.	\$10 Per Sq. Ft.
9	\$666,000	\$888,000	\$1,110,000
12	\$888,000	\$1,184,000	\$1,480,000
15	\$1,110,000	\$1,480,000	\$1,850,000

Questions #8: What environmental protections will the growers have to adhere to?

Response: The California Department of Food and Agriculture (CDFA) currently has proposed legislation that requires marijuana cultivation activity to be conducted in accordance with applicable federal, state, and local laws related to land conversation, grading, electricity usage, water usage, water quality, woodland and riparian habitat protection, species protection, agricultural discharges, and similar matters.

California Department of Food and Agriculture's CalCannabis Cultivation Licensing program will be responsible for ensuring licensees comply with relevant mitigation measure requirements as determined by their environmental analysis. Furthermore, the proposed program is designed to govern the licensing of all commercial indoor, outdoor, and mixed-light, processing, and nursery activities. Both MCRSA and AUMA explicitly state that they do not supersede or limit existing local authority for law enforcement activity; enforcement of local zoning requirements or local ordinances; or enforcement of local license, permit, or other authorization requirements. Topics delegated to local land use authorities include issues such as aesthetics, land use and planning, noise, odors, compliance with building standards, provisions for police and fire protection and connections to public utilities. Local authorities should work with industry stakeholders during the licensing process in a way that encourages development of cultivation facilities that utilize clean, efficient energy. Local entities should consider energy conservation when deciding on zoning, building, and electrical codes.

Reducing the carbon footprint of a marijuana cultivation is complicated. To adequately address security and odor concerns, many local land use authorities are choosing to only license indoor cultivation activities. Doing so requires that facilities install enhanced air filtration systems for odor mitigation and costly lighting equipment which also requires supplemental cooling systems. Two years into the legalized recreational marijuana market, Denver's 362 marijuana grow facilities consumed more than 2% of the City's electricity usage. Statewide cultivations are behind roughly half of Colorado's overall power demands.

In an attempt to promote prudent land and resource use, Boulder County, Colorado is collaborating with local marijuana growers to help them reduce their environmental impacts while simultaneously reducing their costs. The county is requiring cultivators to either offset their electricity use with renewable energy, or to pay a 2.16-cent charge per kwh. Their fee is being put into the Boulder County Energy Impact Offset Fund. The fund is being used to educate and encourage best marijuana cultivation practices with regards to energy usage as well as to und other carbon offset projects. Similarly, In November 2012, the City of Arcata, California passed Measure I, Excessive Electricity Use Tax. The 45% tax on households that use more than 600 percent of the energy baseline (the energy used to power three average homes) was originally designed to address the illegal residential cannabis cultivations. The excessive energy tax is now being used to address the environmental impacts and energy consumption of the licensed cultivators. Officials have said they are expecting to receive approximately \$300,000 per year from the

industry.

Question #9: Please provide more data on odor control.

Response: Controlling odors being released from marijuana plants in a commercial cultivation facility is one of the main concerns for both regulators and business owners. One thing that makes indoor cultivations more advantageous is the fact that the grow environment can easily be sealed and controlled. As the commercialized marijuana industry continues to mature, so does their odor mitigation techniques. Over the past 6 years, commercial cultivators have borrowed technology from industries such as rendering and meat byproduct processors, waste water facilities and papermills.

When addressing and predicting odor related complaints, licensing authorities need to consider the construction material used in the building of the licensed premises, the number of plants being cultivated and the distance to neighboring businesses or houses. Professionally designed cultivation facilities should be designed with multiple layers of odor mitigation equipment. The mostly frequently used equipment is an active carbon filtration system. This technique involves forcing exhaust air through active carbon to filter out a vast majority of the offensive odor. HVAC systems designed to create negative air flow help to contain the ambient air within the facility while pushing the exhaust through additional air filtration systems equipped with odor neutralizers.

After all this, 100% odor mitigation is difficult to achieve and maintain. Knowing this, licensing authorities are encouraged to create air-pollution control ordinances designed to allow the City to require specialized industries such as marijuana cultivation facilities to develop an odor control plan which would identify odor sources and control measures that will be taken to reduce odors from those sources. The measures will be based on best practices for that industry.

Question #10: Can we partner with the County to draft an ordinance?

Response: The City of Riverside is organized as a Charter City as opposed to the County which is organized under general laws of the State and have less autonomy. In addition, the County will have different land use requirements as compared to the City. Although it might be recommended should the City move forward on establishing a regulatory ordinance that it collaborate with the County regarding creating a sensitive buffers policy so that it does not create any impact on each agency or any unintended “greenbelts.”